



ReStart

Continuous safety, everywhere.

GEWISS





ReStart

WE GIVE SHAPE TO THE IDEA OF SECURITY

PROTECTION

ReStart devices restore the power supply only after checking there are no faults in the system. Guaranteeing total, continuous protection, in every condition.

VERSATILITY

ReStart and ReStart Autotest devices are available in 2P and 4P versions, ideal for single-phase and three-phase distribution systems.

RELIABILITY

ReStart and ReStart Autotest can also be installed in unmanned systems, where they are able to guarantee service continuity and a considerable reduction in maintenance costs.

CONTINUITY

ReStart solutions guarantee total continuity under any condition: in the case of untimely tripping, in fact, they reclose the residual current circuit breaker only after checking there are no faults in the system.

The most important aspect of developing and creating electrotechnical products is to give shape to the concept of safety and security. The result is the creation of the ReStart family, a range of advanced residual current devices that are able to guarantee complete safety in the residential, industrial and commercial sectors, protecting people and property. It ensures safety combines seamlessly with service continuity.

Our idea of safety comes in two forms:

- with **ReStart** solutions that ensure **service continuity** in the event of untimely tripping, **only reclosing the residual current circuit breaker** after checking there no system faults.
- with **ReStart AUTOTEST** solutions that offer **optimum safety**, performing a regular **automatic test** on the residual current device **without disconnecting voltage** to the system.

ReStart and ReStart Autotest are ideal for unsupervised systems too, ensuring service continuity and reducing maintenance-related issues. This is the idea of safety the ReStart family of solutions aims to satisfy. And all of this translates into a better quality of life as well. Wherever.



ReStart

When it is needed

- In the event of nuisance tripping of the circuit breaker.
- When there is a fault in the system.
- For any type of supervised or unsupervised residential, commercial or industrial system.

Why choose it

- Resets the electrical power supply in a few seconds, after checking there are no faults in the system.
- In the event of a fault, it does not permit the reclosure of the circuit breaker, to guarantee safety to people and property.
- Guarantees service continuity and protection in every context.

ReStart **PRO**

- Continuous protection and control.
- After the circuit breaker trips, it checks the state of insulation of the system for as long as it takes until the fault has been resolved, before reclosing the circuit breaker.
- Available accessories include bus modules and an auxiliary contact to always be able to remotely control the status of the circuit breaker.

ReStart **TOP**

- Ideal for commercial and industrial applications.
- Permits regulating the times and methods for circuit breaker automatic reclosing.
- Permits setting the number of attempts and the automatic reclosing time delay.

Nuisance tripping of the residual current device: the causes

- ATMOSPHERIC EVENTS:** Atmospheric disturbances, such as electrical discharge generated by lightning. Mechanical resistance to UV rays and chemical agents.
- TECHNICAL MAINTENANCE:** Operations or disturbances on the mains supply triggered by the power supply company.
- HARMONICS DUE TO INVERTERS:** Harmonics, i.e. electric conversion disturbances, generally caused by the presence of photovoltaic inverters.
- INDUSTRIAL DISTURBANCES:** Start up or shut-down of large industrial machines.
- LIGHTING LOADS:** Simultaneous switching on/off of numerous fluorescent light loads.

The exclusive benefits of ReStart

- SERVICE CONTINUITY WITH INSULATION CONTROL:** ReStart guarantees automatic reclosing in the event of untimely circuit breaker tripping after checking there are no faults, thereby avoiding inconvenience and possible damage.
- REDUCTION IN OVERALL DIMENSIONS:** ReStart is even more compact: the solution for single-phase systems only occupies one DIN module, for the widest possible options for installation.
- QUICK RECLOSING:** ReStart is even faster: all the versions guarantee system control and circuit breaker reclosing in just 10 seconds.



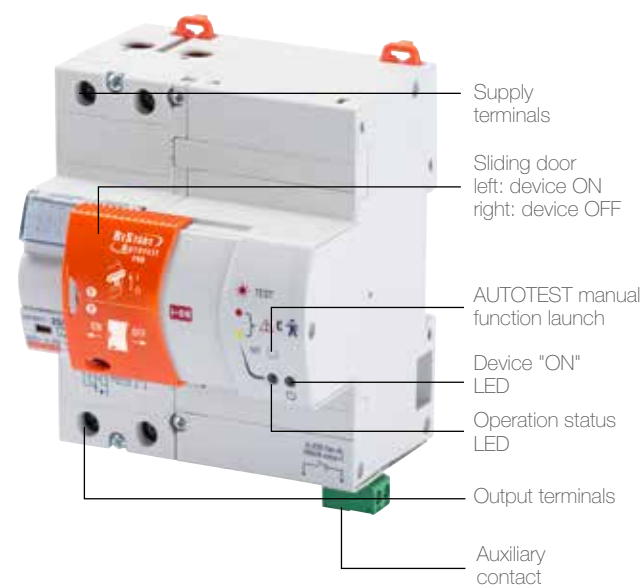
ReStart Autotest

When it is needed

- To automatically test the residual current periodically.
- To guarantee the efficiency and safety of any residential, industrial or commercial system.
- For unsupervised systems where fast and continuous maintenance is not possible.

Why choose it

- It tests the residual current automatically, every 28 days, avoiding manual operation.
- During the automatic test of the residual current circuit breaker it does not disconnect the voltage from the system, guaranteeing service continuity.
- Thanks to the Autotest function, ReStart ensures the system is always safe and efficient, without the need for technical interventions.



Failure of the residual current switch: the causes



Ageing or failure to test the residual current circuit breaker.



Difficult environmental conditions: extreme temperatures and high humidity.



Dusty environments.



Corrosive agents in chemically aggressive environments.

The exclusive benefits of ReStart Autotest



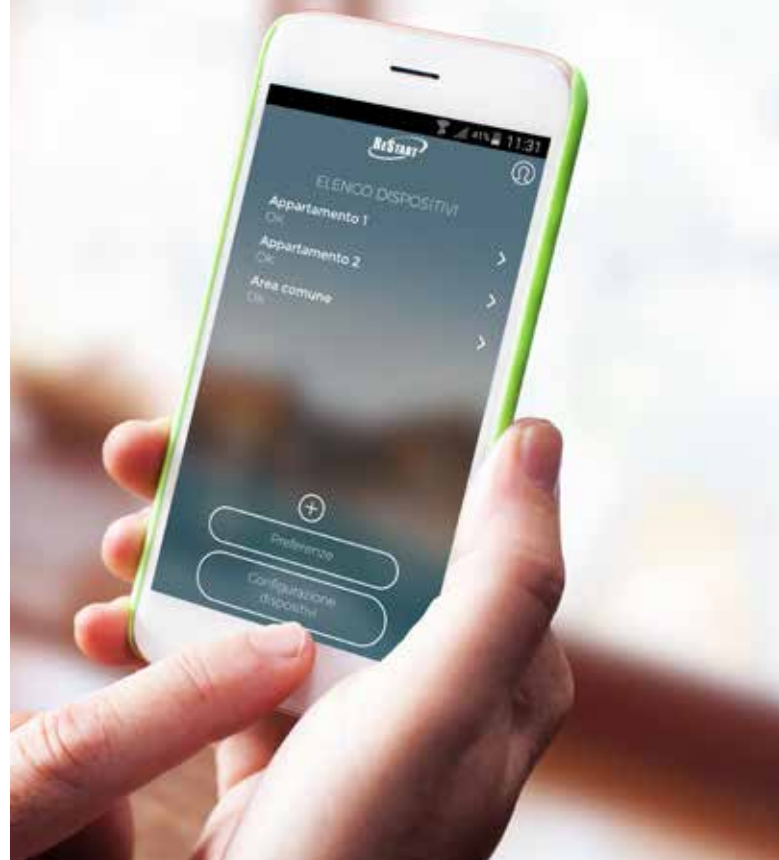
TESTING THE RESIDUAL CURRENT WITH NO LOSS OF VOLTAGE: ReStart Autotest is the only device on the market that can carry out periodic safety testing on the residual current, without disconnecting voltage to the system. This function is guaranteed by special GEWISS-patented bypass contacts.



FREQUENCY OF THE AUTOMATIC TESTING: ReStart Autotest automatically tests the residual current every 28 days, guaranteeing maximum safety for the user and total efficiency of the protective device.



VAST RANGE: ReStart Autotest is available in 2P and 4P versions for single-phase and three-phase distribution systems, for maximum safety in any application context.



Remote control with the WiFi module

When it is needed









- For monitoring the status of the electrical system anywhere and at any time.
- To maintain control of the amount of electrical energy produced and consumed, the active and reactive power, the current and voltage of the system.
- In the case of systems with ReStart Autotest, to test the operation of the residual current protection at any time.

Why choose it

- ReStart App makes it possible, with the use of a simple internet connection, to control the associated ReStart devices with a simple touch.
- It is possible to read all the status values associated with your system at any time from your smartphone or tablet
- With the ReStart App it is not only possible to remotely launch an Autotest command, but also view the details regarding the result, date and time of all the test operations performed over time.












The Wi-Fi interface communication module is one of the accessories available for ReStart for remote control, together with the auxiliary contact module and the RS485 BUS interface communication module.
For more information, visit www.gewiss.com

Wi-Fi module	ReStart RD RM		ReStart Autotest		Information via APP		
	Standard	PRO	PRO		System and device status	Consumption	Remote autotest
 GW0953		 2P			✓	✓	
 GW90945			 4P		✓		
 GW90953			 2P		✓	✓	✓
 GW90954				 4P	✓		✓



The range

	ReStart				ReStart Autotest	
	RD		RM			
	Residual current circuit breakers		RCBOs		Residual current circuit breakers	
Standard	 2P		 2P			
PRO	 2P	 4P	 2P	 4P	 2P	 4P
TOP				 4P		

ReStart: a continuously evolving story.





A universal system for any application context.

Residential

In residential buildings, ReStart and ReStart Autotest are the best solution to guarantee total safety, by periodically checking the residual current circuit breaker to avoid dangerous malfunctions in the circuit breaker due to lack of use. Furthermore, in the case of sudden power interruptions, ReStart reactivates the system in only ten seconds after checking that there is no fault. It guarantees service continuity, therefore ensuring the continuous operation of refrigerators, freezers, alarm systems and all devices connected to the electrical network.

- Condominiums
- Flats or detached houses
- Holiday homes
- Isolated houses

Telecommunications

The ReStart application in the telecommunication stations allows the major telecom operators to guarantee service continuity even in remote locations, thereby significantly reducing maintenance and on-site work costs for: repeaters/antennas located in hard to reach locations; Internet distribution stations via optical fibre.

- Radio links
- Telephone repeaters
- Internet network distribution stations
- Telecommunication stations

Public service

The ReStart installation offers service continuity in public locations such as parks, roads, tunnels and squares, where the continuity of the light flow is essential for ensuring improved safety of people and property. In addition to guaranteeing the operation of public information panels, traffic lights and advertising panels, the GEWISS patent provides efficiency and service continuity also for video surveillance systems.

- Public lighting
- Light signals
- Video surveillance systems
- Advertising panels
- Traffic light systems

Energy distribution and production

When installed in electrical vehicle charging units, ReStart guarantees continuity for refuelling operations, avoiding annoying power interruptions. Furthermore, it ensures maximum efficiency for the production of energy from photovoltaic and wind power systems, where economic return is linked to service continuity and the injection of electrical energy in the distribution network. Finally the GEWISS device is extremely useful in contexts such as smart homes, where it is more frequently used to manage "mini" electrical networks.

- Electric car charging network
- Photovoltaic systems
- Gas pipeline

Transport

The use of ReStart in railway and airport stations allows all the electronic functions to remain active even in distant or difficult to reach points, where the lack of power can cause serious problems for circulation. Autotest also offers a regular check of the residual current protection to guarantee its effectiveness over time. This results in a significant reduction in maintenance and on-site work costs.

- Railway stations
- Airports
- Bus terminals
- Automatic ticketing machines

Dusty environments

ReStart, ReStart with Autotest and ReStart PRO are recommended for harsh environments where the regular, automatic AUTOTEST function keeps the residual current in good working order. In areas, for example, where the residual current protection can deteriorate due to the aggressive conditions to which it is exposed: such as in carpentry workshops, construction sites, mines or the processing industry in general.

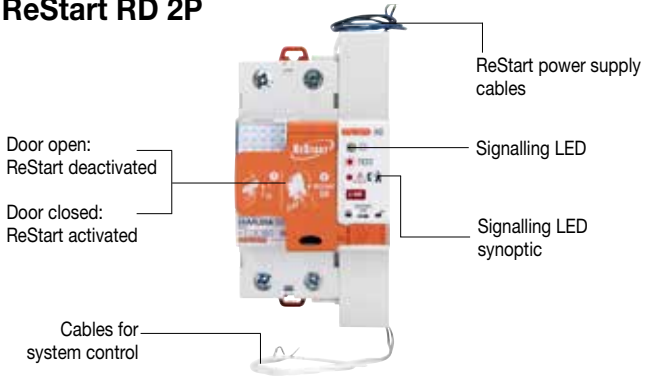
- Construction sites
- Carpenter workshops
- Steel industry
- Mining sites

CHARACTERISTICS AND ADVANTAGES		ReStart Autotest	ReStart RD		ReStart RM		
		PRO	Standard	PRO	Standard	PRO	TOP
	Cost savings, but without reducing safety ReStart devices only restore power to the system once they have checked it for faults. Therefore the safety of people and property is always guaranteed, avoiding the hazard of an electric shock.	✓	✓	✓	✓	✓	✓(*)
	Practical installation, anywhere All ReStart devices work without an earth conductor, which is not always present in domestic enclosures. This feature allows installation in already existing domestic enclosures.	✓	✓	✓	✓	✓	✓
	Continuous control, immediate reclosing. Once the circuit breaker has tripped owing to a fault, ReStart PRO continues to monitor the system every 2 minutes until safety conditions are restored, and then it enables the automatic reclosing of the circuit breaker.	✓		✓		✓	✓(**)
	Self-diagnosis on a continuous cycle ReStart Autotest devices automatically test the residual current periodically. This guarantees the maximum efficiency of the residual current protection, even for a very long period.	✓					
	The energy never deserts you ReStart Autotest periodically tests the residual current without disconnecting voltage from the system, thanks to a special bypass circuit patented by GEWISS. This avoids the inconvenience caused by power failure or voltage drops.	✓					
	Safety under control, from a single point The ReStart devices can be integrated into a MODBUS RS485 data network through a connection with the GEWISS BUS interface in order to centrally manage all the functions of the ReStart devices in the network.	✓		✓		✓	
	A contact that always warns you in the event of a fault An auxiliary contact associated with ReStart makes it possible to detect a fault in the system by means of a sound or light signal. A failed reclosing operation can also be signalled by a text message.	✓		✓		✓	✓
	The system close to hand, everywhere. With a Wi-Fi interface, ReStart can be connected to the Internet to provide system status information at all times. All it takes is a smartphone or a tablet to check the ReStart status from a distance.	✓		✓		✓	
	More compact, smaller overall dimensions in the enclosure. The overall dimensions of the ReStart devices have been reduced. The solution for single-phase systems takes up just one module, guaranteeing a wide range of installation possibilities inside the enclosure.		✓	✓	✓	✓	

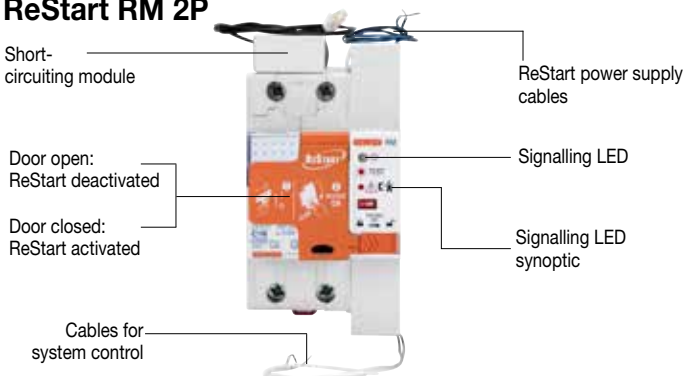
(*) It is possible to choose the automatic reclosing mode: • with a system check • by attempts • remote
(**) It's possible to set the automatic reclosing time delay.
(***) For 4P versions only

RESTART - DEVICE DESCRIPTION

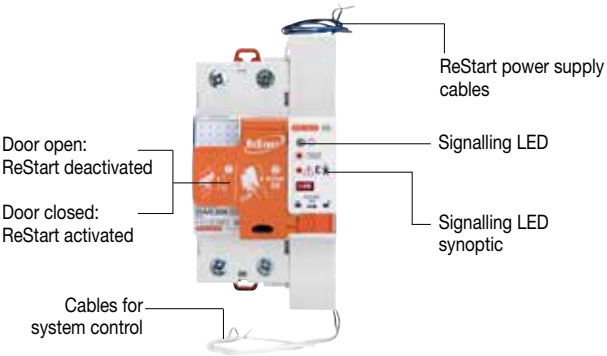
ReStart RD 2P



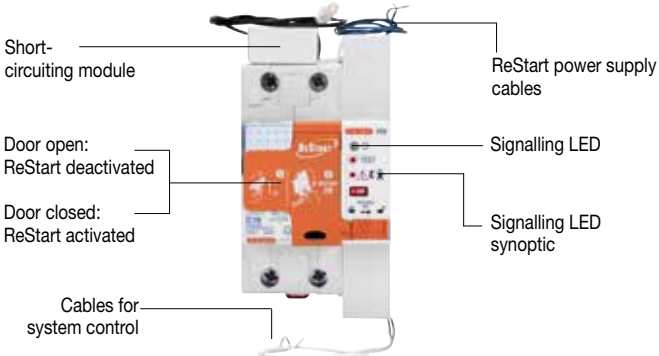
ReStart RM 2P



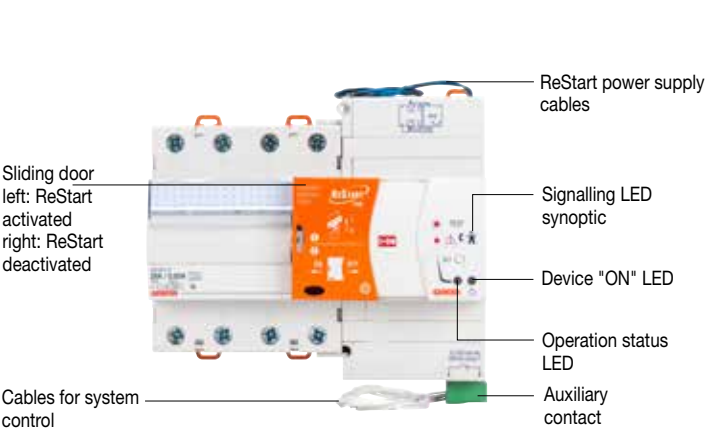
ReStart RD PRO 2P



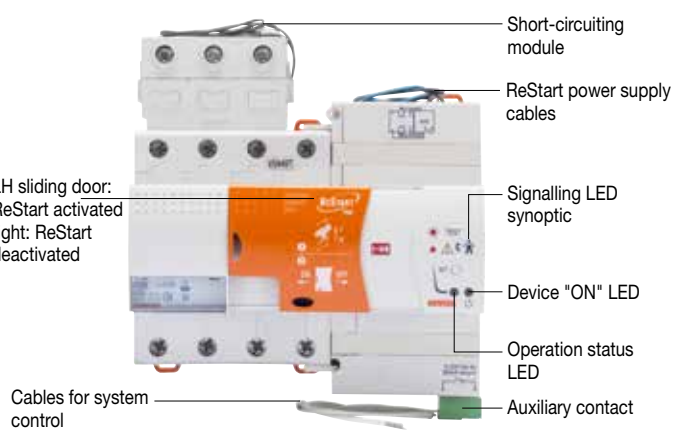
ReStart RM PRO 2P



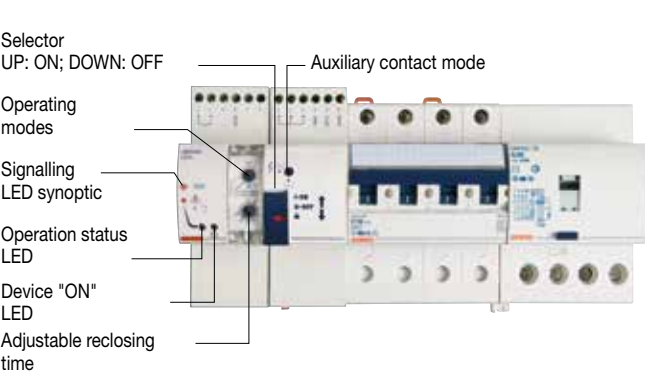
ReStart RD PRO 4P



ReStart RM PRO 4P

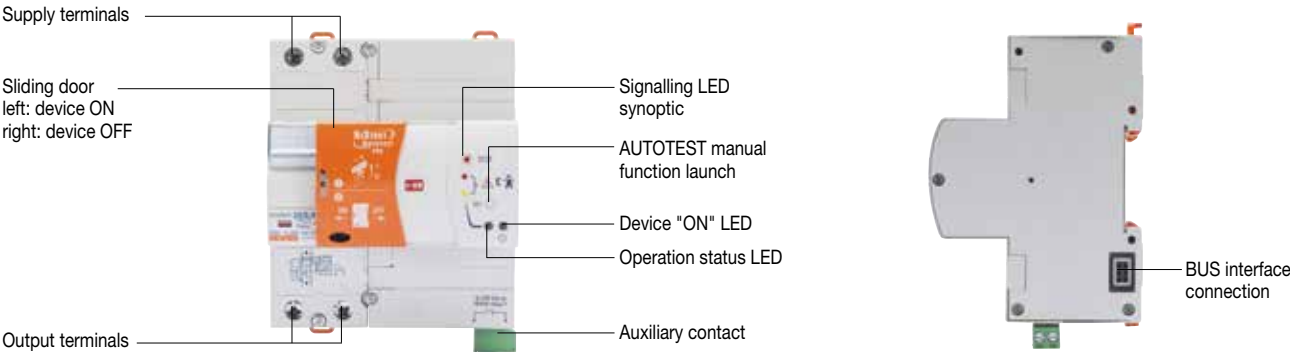


ReStart Rm TOP

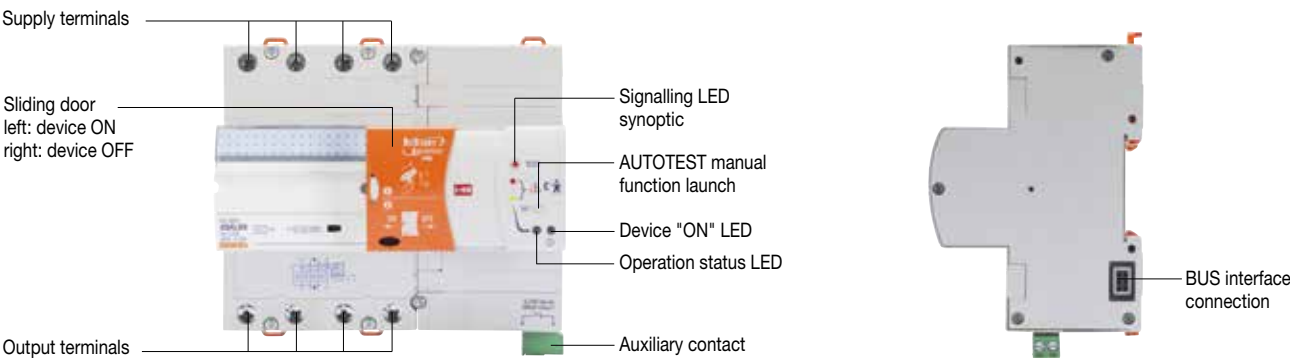


RESTART AUTOTEST - DEVICE DESCRIPTION

Restart autotest PRO 2P





ReStart autotest PRO 4P



Selection guide



Automatic reclosing devices with preventive check of the insulation and automatic test of the residual current circuit breaker.

In (A)	COUPLED VERSIONS WITH RCCB'S		
	ATR2 - 2 poles	ATR4 - 4 poles	
	5 mod.	7 mod.	
			
In (A)	IΔn = 30 mA	IΔn = 30 mA	IΔn = 300 mA
	A[IR] - PRO type	A[IR] - PRO type	A[IR] - PRO type
25	GW 90 901 N	GW 90 921	GW 90 927
40	GW 90 902 N	GW 90 922	GW 90 928
63	GW 90 913	GW 90 923	GW 90 929

NOTE: ARD must be supplied with 230 V AC phase-neutral for working.

RESTART RD - SELECTION GUIDE



Self-reclosing devices with circuit safety check





	DEVICES COUPLED WITH IDP RESIDUAL CURRENT CIRCUIT BREAKERS	
	RD2 - 2 poles	RD2 - 2 poles, PRO version
	3 mod.	
		
IΔn = 30 mA		
In (A)	A type	
25	GW D4 817 R	GW D4 817 P
40	GW D4 827 R	GW D4 827 P

		DEVICES TO COUPLE WITH IDP RESIDUAL CURRENT CIRCUIT BREAKERS								
		RD2 - 2 poles	RD2 - 2 poles, PRO version				RD4 - 4 poles, PRO version			
										
		GW D0 971	GW D0 976	GW D0 978		GW 90 967	GW 90 969			
		1 mod.	1 mod.				3 mod.			
		+	+	+		+	+			
		2P IDP RESIDUAL CURRENT CIRCUIT BREAKERS					4P IDP RESIDUAL CURRENT CIRCUIT BREAKERS			
		2 mod.					4 mod.			
										
		In (A)	Type	IΔn = 30 mA	IΔn = 100 mA	IΔn = 300 mA	IΔn = 500 mA	IΔn = 30 mA	IΔn = 100 mA	IΔn = 300 mA
25	AC	GW D4 002 GW D4 617 *	GW D4 003	GW D4 004	-	GW D4 102	GW D4 103	GW D4 104	-	
	A	GW D4 012 GW D4 817 *	GW D4 013	GW D4 014	-	GW D4 112	GW D4 113	GW D4 114	-	
	A[IR]	GW D4 202	-	-	-	GW D4 217	-	GW D4 218	-	
40	AC	GW D4 022 GW D4 627 *	GW D4 023	GW D4 024	GW D4 025	GW D4 122	GW D4 123	GW D4 124	GW D4 125	
	A	GW D4 032 GW D4 827 *	GW D4 033	GW D4 034	GW D4 035	GW D4 132	GW D4 133	GW D4 134	GW D4 135	
	A[IR]	GW D4 205	-	-	-	GW D4 220	-	GW D4 221	-	
	A[S]	-	-	GW D4 234	GW D4 235	-	-	GW D4 249	GW D4 250	
63	AC	GW D4 042	GW D4 043	GW D4 044	GW D4 045	GW D4 142	GW D4 143	GW D4 144	GW D4 145	
	A	GW D4 052	GW D4 053	GW D4 054	GW D4 055	GW D4 152	GW D4 153	GW D4 154	GW D4 155	
	A[IR]	GW D4 208	-	-	-	GW D4 223	-	GW D4 224	-	
	A[S]	-	-	GW D4 237	GW D4 238	-	-	GW D4 252	GW D4 253	
80	AC	GW D4 062	GW D4 063	GW D4 064	-	GW D4 162	GW D4 163	GW D4 164	-	
	A	GW D4 072	GW D4 073	GW D4 074	-	GW D4 172	GW D4 173	GW D4 174	-	
	A[S]	-	-	GW D4 240	-	-	-	GW D4 255	-	
100	AC	GW D4 082	-	GW D4 084	-	GW D4 182	GW D4 183	GW D4 184	GW D4 185	
	A	GW D4 092	GW D4 093	GW D4 094	-	GW D4 192	GW D4 193	GW D4 194	GW D4 195	
	A[IR]	GW D4 211	-	-	-	GW D4 226	-	GW 94 227	-	
	A[S]	-	-	GW D4 243	GW D4 244	-	-	GW D4 258	GW D4 259	

NOTE: The reclosing device must be powered at 230V AC phase-neutral in order to work properly.
The GW90967 and GW90969 reclosing devices can also be coupled with 2 pole residual current circuit breakers.
* Versions without accessories.





Self-reclosing devices with circuit safety and short-circuit check

				DEVICES COUPLED WITH RCBOs MDC	
				RM2 - 2 poles	RM2 - 2 poles, PRO version
				3 mod.	
					
				IΔn = 30 mA	
Icn (A)	Curve	In (A)		A type	
4500	C	16		GW D4 227 R	GW D4 227 P
		25		GW D4 229 R	GW D4 229 P

DEVICES TO BE COUPLED WITH COMPACT RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION MDC - 2 POLES													
				RM2 - 2 poles		RM2 - 2 poles, PRO version							
													
				GW D0 991		GW D0 996		GW D0 998					
				1 mod.		1 mod.							
				+		+		+					
RCBO MDC 1P+N, 2P													
2 mod.													
													
				IΔn = 30 mA				IΔn = 300 mA					
				AC type		A type		A[I/R] type	AC type		A type		A[S] type
Icn (A)	Curve	In (A)		1P+N	2P	1P+N	2P	2P	1P+N	2P	1P+N	2P	2P
4500	C	6		GW 94 005	GW 94 025	GW 94 205	GW 94 225	-	GW 94 015	GW 94 035	GW 94 215	GW 94 235	-
		10		GW 94 006	GW 94 026	GW 94 206	GW 94 226	-	GW 94 016	GW 94 036	GW 94 216	GW 94 236	-
		13		GW 94 011	GW 94 031	GW 94 211	GW 94 231	-	-	-	-	-	-
		16		GW 94 007	GW 94 027	GW 94 207	GW 94 227	-	GW 94 017	GW 94 037	GW 94 217	GW 94 237	-
		20		GW 94 008	GW 94 028	GW 94 208	GW 94 228	-	GW 94 018	GW 94 038	GW 94 218	GW 94 238	-
		25		GW 94 009	GW 94 029	GW 94 209	GW 94 229	-	GW 94 019	GW 94 039	GW 94 219	GW 94 239	-
		32		GW 94 010	GW 94 030	GW 94 210	GW 94 230	-	GW 94 020	GW 94 040	GW 94 220	GW 94 240	-
6000	C	6		GW 94 105	GW 94 125	GW 94 305	GW 94 325	GW 95 805	GW 94 115	GW 94 135	GW 94 315	GW 94 335	-
		10		GW 94 106	GW 94 126	GW 94 306	GW 94 326	GW 95 806	GW 94 116	GW 94 136	GW 94 316	GW 94 336	-
		13		GW 94 111	GW 94 131	GW 94 311	GW 94 331	GW 95 811	-	-	-	-	-
		16		GW 94 107	GW 94 127	GW 94 307	GW 94 327	GW 95 807	GW 94 117	GW 94 137	GW 94 317	GW 94 337	GW 95 847
		20		GW 94 108	GW 94 128	GW 94 308	GW 94 328	GW 95 808	GW 94 118	GW 94 138	GW 94 318	GW 94 338	GW 95 848
		25		GW 94 109	GW 94 129	GW 94 309	GW 94 329	GW 95 809	GW 94 119	GW 94 139	GW 94 319	GW 94 339	GW 95 849
		32		GW 94 110	GW 94 130	GW 94 310	GW 94 330	GW 95 810	GW 94 120	GW 94 140	GW 94 320	GW 94 340	GW 95 850
	B	6		-	-	GW 95 105	GW 95 125	-	-	-	GW 95 115	GW 95 135	-
		10		-	-	GW 95 106	GW 95 126	-	-	-	GW 95 116	GW 95 136	-
		13		-	-	GW 95 111	GW 95 131	-	-	-	-	-	-
		16		-	-	GW 95 107	GW 95 127	-	-	-	GW 95 117	GW 95 137	-
		20		-	-	GW 95 108	GW 95 128	-	-	-	GW 95 118	GW 95 138	-
		25		-	-	GW 95 109	GW 95 129	-	-	-	GW 95 119	GW 95 139	-
		32		-	-	GW 95 110	GW 95 130	-	-	-	GW 95 120	GW 95 140	-

NOTE: The reclosing device must be powered at 230V AC phase-neutral in order to work properly.






Self-reclosing devices with circuit safety and short-circuit check

DEVICES TO BE COUPLED WITH COMPACT RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION MDC, 4 POLES								
RM4 - 4 poles, PRO version								
								
GW 90 986					GW 90 988			
3 mod.					3 mod.			
+					+			
RCBO MDC 4P								
4 mod.					4 mod.			
								
IΔn = 30 mA					IΔn = 300 mA			
Icn (A)	Curve	In (A)	AC type	A type	A[I _R] type	AC type	A type	A[S] type
4500	C	6	GW 94 065	GW 94 265	-	GW 94 075	GW 94 275	-
		10	GW 94 066	GW 94 266	-	GW 94 076	GW 94 276	-
		13	GW 94 071	GW 94 271	-	-	-	-
		16	GW 94 067	GW 94 267	-	GW 94 077	GW 94 277	-
		20	GW 94 068	GW 94 268	-	GW 94 078	GW 94 278	-
		25	GW 94 069	GW 94 269	-	GW 94 079	GW 94 279	-
		32	GW 94 070	GW 94 270	-	GW 94 080	GW 94 280	-
6000	C	6	GW 94 165	GW 94 365	GW 95 815	GW 94 175	GW 94 375	-
		10	GW 94 166	GW 94 366	GW 95 816	GW 94 176	GW 94 376	-
		13	GW 94 171	GW 94 371	GW 95 821	-	-	-
		16	GW 94 167	GW 94 367	GW 95 817	GW 94 177	GW 94 377	GW 95 857
		20	GW 94 168	GW 94 368	GW 95 818	GW 94 178	GW 94 378	GW 95 858
		25	GW 94 169	GW 94 369	GW 95 819	GW 94 179	GW 94 379	GW 95 859
		32	GW 94 170	GW 94 370	GW 95 820	GW 94 180	GW 94 380	GW 95 860
	B	6	-	GW 95 165	-	-	GW 95 175	-
		10	-	GW 95 166	-	-	GW 95 176	-
		13	-	GW 95 171	-	-	-	-
		16	-	GW 95 167	-	-	GW 95 177	-
		20	-	GW 95 168	-	-	GW 95 178	-
		25	-	GW 95 169	-	-	GW 95 179	-
		32	-	GW 95 170	-	-	GW 95 180	-

NOTE: they are also compatible with RCBOs 1P+N and 2-pole (MDC 1P+N and 2P).
The reclosing device must be powered at 230V AC phase-neutral in order to work properly.



RESTART RM TOP - SELECTION GUIDE

Self-reclosing device with/without circuit safety and/or short-circuit check.

DEVICES TO BE COUPLED WITH MCBS AND ADD-ON RCDS 4 POLES					
<div></div>					
GW 90 893					
4 mod.					
<div></div>					
MCB MT 4 POLE					
4 mod.					
<div></div>					
Curve	In (A)	Icn = 6000 A	Icn = 10000 A	Icn = 25000 A	
C	1	GW 92 081	-	-	
	2	GW 92 082	-	-	
	3	GW 92 083	-	-	
	4	GW 92 084	-	-	
	6	GW 92 085	GW 92 685	GW 92 885	
	10	GW 92 086	GW 92 686	GW 92 886	
	13	GW 92 094	GW 92 694	-	
	16	GW 92 087	GW 92 687	GW 92 887	
	20	GW 92 088	GW 92 688	GW 92 888	
	25	GW 92 089	GW 92 689	GW 92 889	
	32	GW 92 090	GW 92 690	GW 92 890	
	40	GW 92 091	GW 92 691	GW 92 891	
	50	GW 92 092	GW 92 692	GW 92 892	
	63	GW 92 093	GW 92 693	GW 92 893	
B	6	GW 92 285	GW 92 585	-	
	10	GW 92 286	GW 92 586	-	
	13	GW 92 294	GW 92 587	-	
	16	GW 92 287	GW 92 588	-	
	20	GW 92 288	GW 92 589	-	
	25	GW 92 289	GW 92 590	-	
	32	GW 92 290	GW 92 591	-	
	40	GW 92 291	GW 92 592	-	
	50	GW 92 292	GW 92 593	-	
	63	GW 92 293	GW 92 594	-	
D	1	-	GW 92 781	-	
	2	-	GW 92 782	-	
	3	-	GW 92 783	-	
	4	-	GW 92 784	-	
	6	GW 92 485	GW 92 785	-	
	10	GW 92 486	GW 92 786	-	
	13	GW 92 494	GW 92 794	-	
	16	GW 92 487	GW 92 787	-	
	20	GW 92 488	GW 92 788	-	
	25	GW 92 489	GW 92 789	-	
	32	GW 92 490	GW 92 790	-	
	40	GW 92 491	GW 92 791	-	
<div></div>					
ADD-ON RESIDUAL CURRENT DEVICE BD 4 POLE					
3.5 mod.					
<div></div>					
In (A)	IΔn (mA)	AC type	A type	A[IR] type	A[S] type
≤25	30	GW 94 422	GW 94 522	-	-
	300	GW 94 423	GW 94 523	-	-
	500	GW 94 424	GW 94 524	-	-
≤63	30	GW 94 432	GW 94 532	GW 94 586	-
	300	GW 94 433	GW 94 533	-	GW 94 583
	500	GW 94 434	GW 94 534	-	-
	1000	-	-	-	GW 94 585




NOTE: they are also compatible with MTC MCBs, MDC RCBOs, MT MCBs and BD add-on RCDs, 1P+N, 2 and 3 poles.
The reclosing device must be powered at 230V AC phase-neutral in order to work properly.

RESTART AUTOTEST - TECHNICAL DATA

TYPE	ReStart AUTOTEST PRO 2P	ReStart AUTOTEST PRO 4P
<div></div> <div></div>		
Electrical characteristics		
Standards:	EN 50557, EN 61008-1	
Distribution system:	TT - TN-S	
Rated operational voltage (Ue):	(V) 230 AC ⁽¹⁾	400 AC
Minimum operating voltage (min Ue)	(V)	85% Ue
Maximum operating voltage (max Ue):	(V)	110% Ue
Rated insulation voltage (Ui):	(V)	500
Dielectric strength test voltage between pole and earth:	(V)	2500 AC for 1 minute
Rated impulse withstand voltage (Uimp):	(kV)	4
Overvoltage category:		III
Rated frequency:	(Hz)	50
Residual making and breaking capacity (IΔm):	(A)	630
Rated conditional residual short-circuit current with fuse (IΔc):	(A)	10000 (gL 63A) for In=25-40A 10000 (gL 80A) for In=63A
Number of poles:	2	4
Type of associated residual current circuit breaker:	A[IR]	
Rated current (In):	(A)	25 - 40 - 63
Rated residual operating current (IΔn):	(mA)	30 - 300
Rated non-operating resistance between live parts and earth (Rdo):	(kΩ)	8 (30mA) - 2.5 (300mA)
Rated operating resistance between live parts and earth (Rd):	(kΩ)	16 (30mA) - 5 (300mA)
Power loss at In:	(W)	2.2 (25A) - 5.4 (40A) - 6.2 (63A)
Off-load absorbed power:	(VA)	4 (cosφ=0.2)
Power absorbed during automatic reclosing:	(VA)	41 (cosφ=0.5)
Power supply:		from above
Mechanical characteristics		
Width in DIN modules:	5	7
Reclosing time:	(s)	10
Autotest cycle time:	(s)	7
Maximum operational frequency:	(oper/h)	30
Max mechanical endurance (total no. operations):		4000
Maximum no. of consecutive automatic reclosure operations ⁽²⁾ :		3
Counter reset time no. of consecutive automatic reclosure operations:	(s)	60
Section of circuit breaker terminals:	(mm²)	flexible cable: ≤ 1x35 - ≤ 2x16 - ≤ 1x16+2x10 rigid cable: ≤ 1x35 - ≤ 2x16 - ≤ 1x16+2x10
Rated tightening torque:	(Nm)	2
Mounting position:		any
Degree of protection:		IP20 (terminals) - IP40 (front)
Pollution degree:		2
Operating temperature:	(°C)	-25 +60 ⁽³⁾
Stocking temperature:	(°C)	-40 +70
Tropicalization:		55°C - RH 95%
Auxiliary contact characteristics		
Type of contact:		Photomos (potential free contact)
Operating voltage:	(V)	5-230 AC/DC
Operating current:	(mA)	0,6 (min) - 100 cosφ=1 (max)
Operating frequency:	(Hz)	50
Category of use:		AC12
Operating mode:		NO / NC / NC + impulse ⁽⁴⁾
Terminal section:	(mm²)	≤ 2.5
Rated tightening torque:	(Nm)	0,4
Autotest function		
Regular and automatic RCCB test:		•
Light signalling for autotest cycle in progress:		•
Light signalling for any device anomaly:		•
ReStart function		
Automatic reclosure for untimely tripping:		•
Earth leakage check:		•
Continuous system check:		•
Interruption of reclosure operation in the event of a fault:		•
Signalling of reclosure operation in progress:		•
Light signalling of failure:		•
Activation / exclusion of ReStart function:		•
Auxiliary contact for remote operating status access:		•
Compatible with WiFi/ModBus interface module		•
Internal electrical protection:		PTC



⁽¹⁾ Power supply 230V phase-neutral ⁽²⁾ In the absence of a system fault ⁽³⁾ Average daily temperature ≤ +35°C
⁽⁴⁾ Choosing NC + impulse option, auxiliary contact switches for 100ms at the end of each cycle of Autotest carried out successfully.

RESTART RD - TECHNICAL DATA

TYPE	ReSTART Rd 2P	ReSTART Rd PRO 2P	ReSTART Rd PRO 4P
			
Electrical characteristics			
Reference Standards:	EN 50557		
Distribution system:	TT - TN-S		
Rated operating voltage (Ue):	(V)	230 AC ⁽¹⁾	
Minimum operating voltage (min Ue):	(V)	85% Ue	
Maximum operating voltage (max Ue):	(V)	110% Ue	
Rated insulation voltage (Ui):	(V)	500	
Dielectric strength test voltage between pole and earth:	(V)	2500 AC for 1 minute	
Rated impulse withstand voltage (Uimp):	(kV)	4	
Overvoltage category:		III	
Rated frequency:	(Hz)	50	
Residual making and breaking capacity (IΔm):	(A)	IΔm of the associated circuit breaker	
Rated conditional residual short-circuit current with fuse (IΔc):	(A)	IΔc of the associated circuit breaker	
Number of poles:		2	4
Type of IDP residual current circuit breaker:		AC - A - A[IR] - A[S]	
Rated current (In):	(A)	25 - 40 - 63 - 80 - 100	
Rated residual operating current (IΔn):	(mA)	30 - 100 - 300 - 500	
Rated non-operating resistance between live parts and earth (Rdo):	(kΩ)	8 (30mA) - 2.5 (100/300/500mA)	
Rated operating resistance between live parts and earth (Rd):	(kΩ)	16 (30mA) - 5 (100/300/500mA)	
Power loss at In:	(W)	Power loss of the associated circuit breaker	
Off-load absorbed power:	(VA)	3 (cosφ=0.4)	4 (cosφ=0.2)
Power absorbed during automatic reclosing:	(VA)	18 (cosφ=0.5)	45 (cosφ=0.5)
Mechanical characteristics			
Width in DIN modules:		1	3
Reclosing time:	(s)	10	
Maximum operating frequency:	(oper./h)	30	
Max mechanical endurance (total no. operations):		4000	
Maximum no. of consecutive automatic reclosure operations ⁽²⁾ :		3	
Counter reset time no. of consecutive automatic reclosure operations:	(s)	60	
Section of circuit breaker terminals:	(mm²)	flexible cable: ≤ 1x35 - ≤ 2x16 - ≤ 1x16+2x10 rigid cable: ≤ 1x35 - ≤ 2x16 - ≤ 1x16+2x10	
Circuit breaker rated tightening torque:	(Nm)	3 (IDP) - 2 (IDP NO)	
Assembly position:		any	
Circuit breaker degree of protection:		IP20 (terminals) - IP40 (front)	
Pollution rating:		2	
Operating temperature:	(°C)	-5 +40	-5 +60 ⁽³⁾
Storage temperature:	(°C)	-40 +70	
Tropicalisation:		55°C - RH 95%	
Auxiliary contact characteristics			
Available with auxiliary contact:		no	yes (with accessory GWD0951)
Type of contact:		-	Photomos (potential free)
Operating voltage:	(V)	-	5÷230 AC/DC
Operating current:	(mA)	-	0.6 (min) - 100 cosφ=1 (max)
Operating frequency:	(Hz)	-	50
Category of use:		-	AC12
Operating mode:		-	NO/NC/NO with handle position signalling function
Terminal section:	(mm²)	-	≤ 2.5
Rated tightening torque:	(Nm)	-	0.4
ReSTART function			
Automatic reclosure for untimely tripping:		●	●
Earth failure test:		●	●
Continuous system check:		●	●
Interruption of reclosure operation in the event of a fault:		●	●
Signalling of reclosure operation in progress:		●	●
Light signalling of failure:		●	●
Activation / exclusion of ReSTART function:		●	●
Auxiliary contact for remote operating status access:			●
Internal electrical protection:		PTC	PTC

⁽¹⁾Power supply 230V phase-neutral ⁽²⁾In the absence of a system fault ⁽³⁾Average daily temperature ≤ +35°C

RESTART RM - TECHNICAL DATA

TYPE	ReSTART Rm 2P	ReSTART Rm PRO 2P	ReSTART Rm PRO 4P	Rm TOP		
						
Electrical characteristics						
Reference Standards:	EN 50557			-		
Distribution system:	TT - TN-S			TT - TN - IT ⁽¹⁾		
Rated operating voltage (Ue):	(V)	230 AC ⁽²⁾				
Minimum operating voltage (min Ue):	(V)	85% Ue				
Maximum operating voltage (max Ue):	(V)	110% Ue				
Rated insulation voltage (Ui):	(V)	500				
Dielectric strength test voltage between pole and earth:	(V)	2500 AC for 1 minute				
Rated impulse withstand voltage (Uimp):	(kV)	4				
Overvoltage category:		III				
Rated frequency:	(Hz)	50				
Residual making and breaking capacity (IΔm):	(A)	IΔm of the associated circuit breaker				
Number of poles:		2		4		
Type of MDC RCBO:		AC - A - A[IR] - A[S]				
Type of MT+BD RCBO:		-				
Rated current (In):	(A)	from 6 to 32		AC - A - A[IR] - A[S] from 1 to 63		
Rated residual operating current (IΔn):	(mA)	30 - 300		30 - 300 - 500 - 1000		
Rated non-operating resistance between live parts and earth (Rdo):	(kΩ)	8 (30mA) - 2.5 (300mA)		8 (30mA) - 2.5 (300/500/1000mA)		
Rated operating resistance between live parts and earth (Rd):	(kΩ)	16 (30mA) - 5 (300mA)		16 (30mA) - 5 (300/500/1000mA)		
Rated non-operating resistance between live parts (Rcco):	(Ω)	0.4		0.3		
Rated operating resistance between live parts (Rcc):	(Ω)	2.3		1.8		
Power loss at In:	(W)	Power loss of the associated circuit breaker				
Off-load absorbed power:	(VA)	3 (cosφ=0.4)	16 (cosφ=0.2)	15 (cosφ=0.1)		
Power absorbed during automatic reclosing:	(VA)	18 (cosφ=0.5)	34 (cosφ=0.7)	30 (cosφ=0.6)		
Reclosing command:		automatic		automatic / remote ⁽³⁾		
Mechanical characteristics						
Width in DIN modules:		1	3	4		
Reclosing time:	(s)	10		3 (without system test) 10 (with system test)		
Remote control opening time:	(s)	-		2		
Maximum operating frequency:	(oper./h)		30			
Max mechanical endurance (total no. operations):		4000		10000		
Maximum no. of consecutive automatic reclosure operations ⁽⁴⁾ :			3			
Counter reset time no. of consecutive automatic reclosure operations:	(s)		60			
Section of circuit breaker terminals:	(mm²)	flexible cable: ≤ 1x35 - ≤ 2x16 - ≤ 1x16+2x10 rigid cable: ≤ 1x35 - ≤ 2x16 - ≤ 1x16+2x10				
Circuit breaker rated tightening torque:	(Nm)	2				
Assembly position:		any				
Circuit breaker degree of protection:		IP20 (terminals) - IP40 (front)				
Pollution rating:		2				
Operating temperature:	(°C)	-5 +40	-5 +60 ⁽⁵⁾	-25 +60 ⁽⁵⁾		
Storage temperature:	(°C)		-40 +70			
Tropicalisation:		55°C - RH 95%				
Auxiliary contact characteristics						
Available with auxiliary contact:		no	yes (with accessory GWD0951)	already integrated into the device	already integrated into the device	already integrated into the device
Type of contact:		-	Photomos (potential free)		Changeover	Photomos (potential free)
Operating voltage:	(V)	-	5÷230 AC/DC		230 AC / 30 DC	5÷230 AC/DC
Operating current:	(mA)	-	0.6 (min) - 100 cosφ=1 (max)		1.5 AC / 0.8 DC	0.6 (min) - 100 cosφ=1 (max)
Operating frequency:	(Hz)	-			50	
Category of use:		-			AC12	
Operating mode:		-	NO/NC/NO with handle position signalling function		CO	NO/NC/INTERMITTENT
Terminal section:	(mm²)	-			≤ 2.5	
Rated tightening torque:	(Nm)	-			0.4	
ReSTART function						
Automatic reclosure for untimely tripping:		●	●	●		●
Earth failure test:		●	●	●		●
Short-circuit check:		●	●	●		●
Settable insulation threshold:						●
Continuous system check:			●	●		●
Adjustable reclosing standby time ⁽⁶⁾ :						●
Settable reclosing mode:						●
Interruption of reclosure operation in the event of a fault:		●	●	●		●
Signalling of reclosure operation in progress:		●	●	●		●
Light signalling of failure:		●	●	●		●
Activation / exclusion of ReSTART function:		●	●	●		●
Auxiliary contact for remote operating status access:			●	●		●
Internal electrical protection:		PTC	PTC	PTC		PTC

⁽¹⁾ For IT system reclosing without fault check

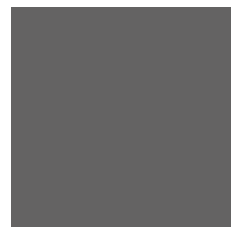
⁽²⁾ Power supply 230V phase-neutral

⁽³⁾ Impulse duration ≥ 200ms

⁽⁴⁾ In the absence of a system fault

⁽⁵⁾ Average daily temperature ≤ +35°C

⁽⁶⁾ Automatic reclosure delay time: 0-1h



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